

element having a flange and being activated by an associated operating device, said associated operating device is a pressure producing element having an operating direction of action associated therewith; and

15 a recoil device, said recoil device being operatively positioned against said flange, said recoil device having a recoil direction associated therewith, said recoil direction being opposite said operating direction of action of said associated operating device, said recoil device being configured for activating said associated bolt element.

A4
46. (Amended) The arrangement of claim 5, wherein said wear part consists essentially of one of a ceramic material, a thermoplastic material and a composite of said ceramic material and said thermoplastic material.

A5
47. (Amended) The arrangement of claim 5, wherein said shaped part consists essentially of one of a ceramic material, a duroplastic material, a thermoplastic material and a composite of at least two of said ceramic material, said duroplastic material and said thermoplastic material.

REMARKS

Claims 1-49 are pending and are rejected in this application. Claims 1, 5, 25, 38, 46 and 47 are amended hereby.

Responsive to the Examiner's comments at page 2 of the Office Action regarding Figs. 4 and 9, and the corresponding descriptions in the specification, Applicants respectfully disagree with the Examiner. Fig. 4 shows shaped part 2 in contact with the base of support piece 5 whereas Fig. 9 shows shaped part 2 in contact with the top of support piece 5. Applicants submit that the drawings and specification are in allowable form.

Responsive to the rejection of claims 5-49 under 35 U.S.C. § 112, second paragraph, Applicants have amended claims 5, 46 and 47, keeping in mind the comments offered by the Examiner. Applicants submit that claims 5-49 are now in allowable form.

Responsive to the rejection of claims 1-7, 28-34 and 42-49 under 35 U.S.C. § 102(e)/103(a), as being anticipated/obvious by U.S. Patent No. 6,379,503 (Jansson), Applicants have amended claims 1 and 5, and submit that claims 1-7, 28-34 and 42-49 are now in condition for allowance.

Jansson '503 discloses suction devices 7, 10, 11 (Figs. 1-4) including two elongated stable support bodies 20, 21, forming the side walls of the suction device and defining between them vacuum chamber 22, and two elongated, ledge-shaped wear bodies 23, 24, having a free wear surface 13, 14, with which movable clothing 4, 8 is in sliding contact (column 5, lines 47-53). Wear ledges 23, 24 have a continuous T-shaped mounting track or groove 28 extending in the cross-machine direction between the two ends of wear ledges 23, 24 and consisting of an inner groove part 29 and an outer groove part 30, opening in the direction towards support body 20, 21, inner groove part 29 being wider than outer groove part 30 (column 5, line 63 through column 6, line 2). Locking bar 31 and press bar 45 are connected to each other by way of a plurality of connecting elements 50 to create a unit which is movable and displaceable in parallel relative to support body 20, 21 (column 6, lines 57-60). Expandable hose 47, which forms part of a mounting device, is arranged in inner cavity part 49 so as, when activated, to press against press bar 45 with a force that is greater than the combined spring force of spring washers 58 such that the wear ledge is displaced away from support body 20, 21 (column 7, lines 25-30).

In contrast, claim 1, as amended, recites in part:

providing a clamping device in contact with each of said shaped part and said support piece . . . clamping said shaped part and said support piece together using

said clamping device, the machine having a machine direction, said clamping step providing clamping in both said machine direction and orthogonal to said machine direction.

(Emphasis added). Applicant submits that such an invention is neither taught, disclosed nor suggested by Jansson '503, or any of the other cited references, alone or in combination, and includes distinct advantages thereover.

Jansson '503 discloses an expandable hose between a press bar and a support body. However, Jansson '503 fails to disclose or suggest a clamping device in contact with each of the shaped part and the support piece, and clamping the shaped part and the support piece together using the clamping device, the machine having a machine direction, the clamping step providing clamping in both the machine direction and orthogonal to the machine direction. With the clamping device of the present invention incident on an angled surface as in Fig. 1, for example, the clamping will be normal to the angled surface and will therefore have a component in both the machine direction and orthogonal to the machine direction.

The present invention as set forth by amended claim 1 has distinct advantages over Jansson '503 and the other cited references. An advantage of the present invention is two parts are clamped to each other by a clamping device so that an operating tolerance is vastly or preferably totally eliminated based on manufacturing tolerances. Another advantage of the present invention is a quick and non-destructive change-over of the shaped part is possible. Yet another advantage of the present invention is a common sealing of the two parts (support piece and shaped part) by the clamping device on the one hand and a positive locking of the two parts on the other hand provides that neither fiber-loaded nor dirt-loaded processing water can penetrate between them. A further advantage of the present invention is this type of clamping provides an excellent way of realizing the advantages of increased effective operating time, a defined and

constant dewatering geometry and low change-over times. A yet further advantage of the present invention is clamping is achieved by the clamping device in a manner whereby vibrations are eliminated and the clamping becomes oscillation damping, whereby a "softer" and low-noise machine operation is achieved.

For all of the foregoing reasons, Applicants submit that claim 1, and claims 2-4 depending therefrom, are now in condition for allowance, the allowance of which is hereby respectfully requested.

In further contrast, claim 5, as amended, recites in part:

at least one clamping device operatively positioned and in contact with each of said part contour and said piece contour, the machine having a machine direction, at least one said clamping device providing clamping in both said machine direction and orthogonal to said machine direction.

(Emphasis added). Applicant submits that such an invention is neither taught, disclosed nor suggested by Jansson '503, or any of the other cited references, alone or in combination, and includes distinct advantages thereover.

Jansson '503 discloses an expandable hose between a press bar and a support body. However, Jansson '503 fail to disclose or suggest at least one clamping device operatively positioned and in contact with the part contour and the piece contour, the machine having a machine direction, at least one clamping device providing clamping in both the machine direction and orthogonal to the machine direction. With the clamping device of the present invention incident on an angled surface as in Fig. 1, for example, the clamping will be normal to the angled surface and will therefore have a component in both the machine direction and orthogonal to the machine direction.

The present invention as set forth by amended claim 5 has distinct advantages over Jansson '503 and the other cited references. An advantage of the present invention is two parts

are clamped to each other by a clamping device so that an operating tolerance is vastly or preferably totally eliminated based on manufacturing tolerances. Another advantage of the present invention is a quick and non-destructive change-over of the shaped part is possible. Yet another advantage of the present invention is a common sealing of the two parts (support piece and shaped part) by the clamping device on the one hand and a positive locking of the two parts on the other hand provides that neither fiber-loaded nor dirt-loaded processing water can penetrate between them. A further advantage of the present invention is this type of clamping provides an excellent way of realizing the advantages of increased effective operating time, a defined and constant dewatering geometry and low change-over times. A yet further advantage of the present invention is clamping is achieved by the clamping device in a manner whereby vibrations are eliminated and the clamping becomes oscillation damping, whereby a "softer" and low-noise machine operation is achieved.

For all of the foregoing reasons, Applicants submit that claim 5, and claims 6, 7, 28-34 and 42-49 depending therefrom, are now in condition for allowance, the allowance of which is hereby respectfully requested.

Responsive to the rejection of claims 1-7, 9, 14, 17, 20, 21, 29-37, and 40-49 under 35 U.S.C. § 102(b)/103(a), as being anticipated/obvious by U.S. Patent No. 5,486,270 (Schiel) or U.S. Patent No. 4,559,105 (Sennett et al.) or U.S. Patent No. 3,953,284 (Evalahti) or U.S. Patent No. 3,576,716 (Reynolds et al.), Applicants have amended claims 1 and 5, and submit that claims 1-7, 9, 14, 17, 20, 21, 29-37, and 40-49 are now in condition for allowance.

Schiel '270 discloses cover strip 10 (Fig. 1) including movable support shape 11 and, arranged on it, foil strip 12 made of a hard material (column 2, lines 35-37). Located between shanks 11a, 11b of support shape 11 is a stationary backing shape 13 which is rigidly joined to

beam 1 (column 2, lines 50-53). Provided between the top side of the backing shape and the underside of the support shape is a compression device in the form of an interposed hose 30 to which internal pressure is supplied, or in the form of spring elements 30a in recesses 30b, the respective hose or spring elements ensuring that the matching surfaces of wedge-shaped parts 31, 32 will extend on each other without play (column 3, lines 14-20).

Sennett et al. '105 discloses foil blade assembly 10 (Fig. 1) including foil blade 17 having recess 17a on its lower surface for aiding in mounting it on holder 18 (column 3, lines 3-4). Holder 18 is carried on mount 19 which is supported on frame 27 (column 3, lines 4-5). Holder assembly 18 has upper holder 19 with upper projecting portion 19a which seats in recess 17a in the blade (column 3, lines 10-12). The blade is cemented or otherwise secured to part 19a of the holder such as by silicon rubber 20 (column 3, lines 12-14). The mount is suitably secured to frame 27 such as by having downwardly extending openings at intervals through which screws 26 extend threaded into the frame and securing the mount rigidly on the frame (column 3, lines 37-40). Mount 29 is provided with a continuous center groove or slot having side walls 23 and 29b, in which is seated inflatable member 24 (column 3, lines 47-49).

Evalahti '284 discloses (Fig. 1) water removal blade 1, U-bar 2 and rail 3 with a T-shaped cross section, of which the horizontal flanges extend over flanges 5 of the water removal blade and the waist part of which extends downwards inside the U-bar 2 (column 2, lines 55-60). T-rail 3, which works as a locking part, has been connected operationally to the U-bar by way of a lever arm system, including lever arms 7 (column 3, lines 61-63). In Fig. 5 the T-rail, which works as a locking member, is stationary and on both sides its lower part has grooves 21 in which have been fitted resilient tubes 22, which have been connected to a pressure medium source (not shown) and which, when under pressure, press flanges 5 of water removal blade 1 fitted on top of T-shaped

rail 3 upwards against the horizontal flanges of the T-rail, whereby the blade stays firmly in place (column 3, lines 19-29).

Reynolds et al. '716 discloses a foil support assembly 5 (Fig.2) including support member 10, foil body 14, and a replacable foil cap 16 having a leading knife-edge 11 (column 2, lines 58-61). Foil cap 16 is attached to foil body 14 by a dovetail tongue and groove type joint (column 2, lines 68-69). Groove 35 is defined in body 14 and open in a direction facing clamp bar 26 (column 3, lines 21-22). Groove 35 is arranged below the level of screws 27 and extends parallel to leading edge 11 (column 3, lines 22-24). A collapsible-inflatable tube 36 is arranged within slot 35 and connected to a suitable adjustable source of fluid pressure (not shown) for providing selected positive pressure or negative pressure (i.e. drain) to inflate or collapse tube 36 (column 3, lines 24-28).

Applicants respectfully submit that the amendment to claims 1 and 5 discussed above also distinguish claims 1 and 5, and claims 2-4, 6, 7, 9, 14, 17, 20, 21, 29-37, and 40-49 depending therefrom, from the cited prior art including Schiel '270, Sennett et al. '105, Evalahti '284 and Reynolds et al. '716. For all of the foregoing reasons, Applicants submit that claims 1-7, 9, 14, 17, 20, 21, 29-37, and 40-49 are now in condition for allowance, the allowance of which is hereby respectfully requested.

Responsive to the rejection of claims 1-49 under 35 U.S.C. § 103(a), as being obvious by U.S. Patent No. 5,486,270 (Schiel) and/or U.S. Patent No. 4,559,105 (Sennett et al.) and/or U.S. Patent No. 3,576,716 (Reynolds et al.) and/or U.S. Patent No. 3,953,284 (Evalahti), Applicants have amended claims 1, 5 and 25, and submit that claims 1-49 are now in condition for allowance.

Regarding claims 1-24 and 26-49, Applicants respectfully submit that the amendment to claims 1 and 5 discussed above also distinguish claims 1 and 5, and claims 2-24 and 26-49 depending therefrom, from the cited prior art including Schiel '270, Sennett et al. '105, Reynolds et al. '716 and Evalahti '284.

Regarding claim 25, Applicants have rewritten claim 25 in independent form including the limitation of original base claim 5 and intervening claim 7, and also obviating informalities in the same. Applicants respectfully traverse the previously discussed rejection of claim 25. Schiel '270, Sennett et al. '105, Reynolds et al. '716 and Evalahti '284, alone or in combination, fail to disclose or suggest the T-rib having a first root face and a second root face on opposing sides thereof, the first root face being shorter than the second root face, the clamping device being positioned proximate to the first root face as shown in Fig. 14 and described in the detailed description of the present application as originally filed, and as claimed in amended claim 25.

For all of the foregoing reasons, Applicants submit that claims 1-49 are now in condition for allowance, the allowance of which is hereby respectfully requested.

Responsive to the rejection of claim 28 under 35 U.S.C. § 103(a), as being obvious by U.S. Patent No. 5,486,270 (Schiel) and/or U.S. Patent No. 4,559,105 (Sennett et al.) and/or U.S. Patent No. 3,576,716 (Reynolds et al.) and/or U.S. Patent No. 3,953,284 (Evalahti) in further view of U.S. Patent No. 6,379,503 (Jansson), Applicants submit that claim 28 depends from independent claim 5. Claim 5 is in condition for allowance as discussed above. Therefore, claim 28 depending therefrom is in condition for allowance, the allowance of which is hereby respectfully requested.

Responsive to the rejection of claims 5 and 39 under 35 U.S.C. § 102(b), as being anticipated by U.S. Patent No. 6,039,843 (Wight), Applicants have amended claim 5, and submit that claims 5 and 39 are now in condition for allowance.

Wight '843 discloses a pivoting clamp style clamping assembly 122 (Fig. 8) including cam operated load mechanism 120 (column 10, lines 64-67). With unclamp tube 70 inflated, cam operated load mechanism 120 is reversed or unloaded and foil blade 62 can be installed into or removed from a dewatering device (column 11, lines 3-5). If cam operated load mechanism 120 is engaged, the cam is rotated into operating position and unload tube 70 is deflated and foil blade 62 is locked into position on mounting pad 64 (column 11, lines 7-10).

Applicants respectfully submit that the amendment to claim 5 discussed above also distinguish claim 5, and claim 39 depending therefrom, from the cited prior art including Wight '843. For all of the foregoing reasons, Applicants submit that claims 5 and 39 are now in condition for allowance, the allowance of which is hereby respectfully requested.

At page 8 of the Office Action, the Examiner has indicated claim 38 would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims and obviating any informalities in the same claims, for which courtesy the Examiner is thanked. Applicants have amended claim 38 to include the limitations of claims 5, 35 and 36 with the informalities of claim 5 removed. For all of the foregoing reasons, Applicants submit that claim 38 is now in condition for allowance, the allowance of which is hereby respectfully requested.


For the foregoing reasons, Applicants submit that the pending claims are definite and do particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Moreover, Applicants submit that no combination of the cited references teaches,

discloses or suggests the subject matter of the amended claims. The pending claims are therefore in condition for allowance, and Applicants respectfully request withdrawal of all rejections and allowance of the claims.

In the event Applicants have overlooked the need for an extension of time, an additional extension of time, payment of fee, or additional payment of fee, Applicants hereby conditionally petition therefor and authorizes that any charges be made to Deposit Account No. 20-0095, TAYLOR & AUST, P.C.

Should any question concerning any of the foregoing arise, the Examiner is invited to telephone the undersigned at (260) 897-3400.

Respectfully submitted,



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Date



ATTACHMENT A:
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IN THE CLAIMS

Please amend claims 1, 5, 25, 38, 46 and 47 as follows:

1. (Amended) A method of attaching a first unit onto a support piece, said first unit being a portion of a machine for processing at least one of paper, cardboard and tissue, said first unit including a shaped part and a wear part, comprising the steps of:
 - interlocking said shaped part and said support piece;
 - providing a clamping device [positioned relative to] in contact with each of said shaped part and said support piece; and
 - clamping said shaped part and said support piece together using said clamping device, the machine having a machine direction, said clamping step providing clamping in both said machine direction and orthogonal to said machine direction, thereby clamping said shaped part and said support piece in a manner such that an operating tolerance therebetween is at least substantially eliminated, that a quick and non-destructive change-over of said shaped part and that a common sealing between said shaped part and said support piece results, said common sealing essentially preventing both fiber-loaded and dirt-loaded processing water from penetrating between said shaped part and said support piece.
5. (Amended) An arrangement for use within a machine for at least one of making and processing at least one of paper, cardboard and tissue, said arrangement comprising:
 - a first unit having a shaped part together with a wear part, said shaped part having a part underside, said part underside having an underside length, said shaped part displaying a part

contour upon said part underside along substantially all of said underside length;

a support piece interlocking with said shaped part, said support piece having a support piece top and a corresponding top length, said support piece having a piece contour upon said support piece top along substantially all of said top length, said piece contour being substantially complimentary to said part contour; and

at least one clamping device operatively positioned [relative to both] and in contact with each of said part contour and said piece contour, the machine having a machine direction, at least one said clamping device providing clamping in both said machine direction and orthogonal to said machine direction.

25. (Amended) [The] An arrangement [of claim 7, wherein] for use within a machine for at least one of making and processing at least one of paper, cardboard and tissue, said arrangement comprising:

a first unit having a shaped part together with a wear part, said shaped part having a part underside, said part underside having an underside length, said shaped part displaying a part contour upon said part underside along substantially all of said underside length;

a support piece interlocking with said shaped part, said support piece having a support piece top and a corresponding top length, said support piece having a piece contour upon said support piece top along substantially all of said top length, said piece contour being substantially complimentary to said part contour, said part contour is an inside contour within said shaped part, said piece contour being an outside contour of said support piece; and

at least one clamping device operatively positioned and in contact with each of said part contour and said piece contour, said inside contour includes a T-groove, said outside contour including a T-rib, said T-rib having a first root face and a second root face on opposing sides

thereof, said first root face being shorter than said second root face, said clamping device being positioned proximate said first root face.

38. (Amended) [The] An arrangement [of claim 36, further comprising] for use within a machine for at least one of making and processing at least one of paper, cardboard and tissue, said arrangement comprising:

a first unit having a shaped part together with a wear part, said shaped part having a part underside, said part underside having an underside length, said shaped part displaying a part contour upon said part underside along substantially all of said underside length;

a support piece interlocking with said shaped part, said support piece having a support piece top and a corresponding top length, said support piece having a piece contour upon said support piece top along substantially all of said top length, said piece contour being substantially complimentary to said part contour;

at least one clamping device operatively positioned and in contact with each of said part contour and said piece contour, at least one said clamping device is a bolt element, said bolt element having a flange and being activated by an associated operating device, said associated operating device is a pressure producing element having an operating direction of action associated therewith; and

a recoil device, said recoil device being operatively positioned against said flange, said recoil device having a recoil direction associated therewith, said recoil direction being opposite said operating direction of action of said associated operating device, said recoil device being configured for activating said associated bolt element.

46. (Amended) The arrangement of claim 5, wherein said wear part consists essentially of one of a ceramic material, a thermoplastic material and a composite [thereof] of said ceramic

Title: METHOD AND ARRANGEMENT FOR ATTACHING AT LEAST ONE SHAPED
PART TOGETHER WITH A WEAR PART ONTO A SUPPORT PIECE

Application Serial No.: 09/997,026 Group: 1731

Examiner: K. Hastings

material and said thermoplastic material.

47. (Amended) The arrangement of claim 5, wherein said shaped part consists essentially of one of a ceramic material, a duroplastic material, a thermoplastic material and a composite [thereof] of at least two of said ceramic material, said duroplastic material and said thermoplastic material.